

REMARKS

Claims 1-6 are currently pending in the application. By this amendment, claims 1 and 3 are amended further to Examiner's instruction. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each.

Information Disclosure Statement

The Examiner has stated that Japanese reference 2000-66816 cited on the IDS date 11.08/2001, paper #3, has not been considered because an English translation was not provided. Applicant herewith encloses an English translation of the abstract of the subject Japanese reference as downloaded from the Japanese Patent Office web site.

Claim Objections

Claims 1 and 3 have been objected to due to informalities. In claim 1, "finger" was misspelled as "finer". In claim 3, "user's" should be "user's finger". Applicant hereby amends claims 1 and 3 to correct these informal errors.

In view of the foregoing, applicant respectfully requests withdrawal of these objections.

Claim Rejections - 35 USC § 102

Claims 1, 2, and 6 stand rejected under 35 U.S.C. § 102(e) as anticipated by Brisebois et al. (US 6,369,803). Claim 1 recites a method for inputting information comprising a first step of sensing that a user's finger touches a key for inputting information, a second step of displaying information assigned to the key being touched, and a third step of deciding to input the displayed information by pushing the key at a pressure higher than a predetermined value. Claim 2 is drawn to the case where the key is one of many, and the function of which is to display information regarding the function of the key in a display area, and claim 6 is drawn to an information inputting apparatus which uses the method of the invention.

Examiner states that Brisebois et al. teach a method of inputting information with a first step of sensing that a user's finger touches a key for inputting information, and a second step of displaying information assigned to the key, and a third step of deciding to input the displayed information by pushing the key at a higher, predetermined pressure. Applicant submits that Examiner's assessment of Brisebois et al. technology is in error.

Brisebois et al. state that the purpose of their invention is to provide “an improved user interface device ... **that does not require physical keys...**” (column 2, lines 1-4). Rather, Brisebois et al. teach an “active edge user interface” which is described in detail as a strip of material (column 4, lines 49-50) that is flexible (column 3, line 13), i.e. a “flexible strip” (column 4, lines 60-61; column 5, line1). The flexible strip is positioned near and extending along the edge or border of a display (see column 3, lines 11-14; column 4). The strip may be continuous or segmented (column 5, lines 5-9) and may be either smooth or include protrusions or texture (column 5, lines 11-14) to facilitate location of an appropriate segment of the strip non-visually. The strip provides “two-step” functionality: at defined positions along the strip, a user can merely touch (light pressure) the strip to effect a first function (e.g. display of choices in the display area) and then exert further pressure at the same location to effect a second function, such as definitively selecting a highlighted choice. However, in all cases, the invention is a flexible strip, and, as is stated at column 2, lines 1-4, is not intended to be applied to the “keys” of a device but is intended to not require keys. No keys are involved.

However, a device which “hosts” the active edge user interface (column 3, lines 12-13; column 8, line 61) may also include keys. See for example, Figures 5A-D which depict a cellular telephone with a typical ten key for keying telephone numbers in the usual manner, i.e. by fully pressing a key to indicate that a selection has been made. Further, three keys are built into the active edge user interface itself (550 in figure 5A). These 3 keys are not, however, dual function (touch for information, push to make final selection) as is the active edge user interface strip. Rather, they function to allow the user to choose an option revealed by the operation of the active edge user interface by “pressing the appropriate button” (column 9, line 11-12), i.e. a single, definitive pressing of the key. The keys depicted on the cellular phone function separately from the active edge user interface flexible strip.

In contrast, the present invention provides a novel method for inputting information through the information-inputting keys of a device (e.g. page 2, lines 21-24). The keys themselves respond to a light touch by displaying information concerning the potential function of the key (e.g. a number that may be entered), while a firm “push” on the key definitively selects the function of the key (e.g. enters that particular number). The concept of endowing the information-inputting keys of a device with the ability to differentiate between a light and a firm

touch and to respond accordingly is not taught by Brisebois et al., and in fact, the invention of Brisebois et al. is intended to be carried out without "physical keys", as described above. Brisebois et al. thus does not, as stated by Examiner, anticipate the subject matter of claims 1, 2 and 6 of the present invention.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claim Rejections - 35 USC § 103

Examiner's Point No. 6

Claim 3 stands rejected under 35 USC § 103(a) as being unpatentable over Brisebois et al., in view of Kraft et al. (US 6,487,424). Claim 3 of the present invention recites a method for inputting information as in claim 1, in which a key touched by a user's hand selects desired information from a plurality of information, the display means successively displaying the plurality of information at a predetermined intervals, when the user's finger continues to touch the key. This feature of the invention is further described in the specification on page 11 at lines 14-18, where it is stated that, for example, the letters of the alphabet can be successively and automatically displayed on the display at a certain interval if the user continues to touch the appropriate key. Applicant notes that this "touch" refers to the initial light touch on the key, not the decisive push on the key that enters a choice or selection.

The Examiner states that Brisebois teaches that a key touched by the user's finger selects desired information out of a plurality of information at a predetermined interval when the user's finger continues to touch or slightly press, in an upward or downward motion, across the surface of the active edge input device; but does not teach that the display means successively displays the plurality of information at predetermined intervals. Examiner states that this deficiency is met by the teaching of Kraft, which teaches that a display means successively displays the plurality of information at a predetermined interval when a user's finger continues to touch a key, and that the combination of these two teachings renders the subject matter of claim 3 obvious. Applicant respectfully disagrees.

Brisebois et al. differs from the present invention as described above in the section entitled "Claim Rejections - 35 USC § 102" where it is shown that Brisebois et al. does not teach dual function keys. (The invention of Brisebois et al. does not involve keys of any type.) Further,

Brisebois et al. teaches scrolling through a selected list by dragging (e.g. touching or slightly pressing) a finger or other instrument in an upward or downward motion across the surface of active edge input device, and, as stated by Examiner, does not show or discuss the display of the list by constant touching of a single key. Examiner asserts that Kraft teaches the constant touching of a single key, yet Kraft's exact description is that the user may "navigate through the candidate list by "pressing the scroll key 41 in an upward/downward direction." Applicant submits that pressing a key "in an upward/downward direction" is not the same as merely touching a key and leaving the finger in place, and continuing to touch the key, while the elements of the list appear successively at predetermined time intervals, with no further motion or movement on the part of the user. By "pressing a key in an upward/downward direction" one might refer to exerting multiple pulses of pressure onto the key (upward and downward being perpendicular to the plane of the instrument) or, alternatively, moving the key from side to side, i.e. laterally, within the plane; or even moving the finger on the key from side to side. In any case, it is not equivalent to resting the finger on the surface of a key with a light (i.e. non-selection) touch, thereby causing the list to scroll by. Brisebois et al. neither shows or discusses such a function, not does Kraft. Thus, no combination of these two references can render obvious the present invention as claimed in claim 3.

Examiner's Point No. 7

Claims 4-5 stand rejected under 35 USC § 103(a) as being unpatentable over Brisebois et al., in view of Waldman (US 5,311,175). Claims 4-5 of the present invention recite that the key touched by a user's finger is one of a component of a ten key for inputting a numeral or character.

Regarding claim 4, Examiner states that Brisebois et al. teach as described above in the section entitled "Claim Rejections - 35 USC § 102" and in the rejection of claim 3. Further, Examiner describes Brisebois et al. as teaching that the key touched by a user's finger is one of the component keys of a ten key as is used in a cellular phone, or of a function-selecting key for selecting a desired function out of plural functions in a first step, and for shifting a cursor to a selective item assigned to the component keys of the function-selection key, in which the selected item is included in a group of selective items corresponding to the component keys. Examiner states, however, that Brisebois et al., does not explicitly teach the ten key for inputting

a numeral, but that it would be obvious to one of ordinary skill in the art to use “the ten key of Brisebois” for inputting a numeral due to wide knowledge in the art.

Applicant respectfully suggests that, in fact, the ten key of Brisebois et al. might well be for inputting a numeral. In fact, in a cellular telephone, one would reasonably expect that the ten key (as depicted in Figures 5A-D of Brisebois et al) would be used for inputting numerals (e.g. digits of a telephone number). However, this is a moot point because, as described above, the ten key of Brisebois et al. is not composed of dual function keys and thus does not anticipate the present invention, whether used to enter numerals or not. Likewise, there are no function-selecting keys with dual function disclosed in Brisebois et al. The dual functionality of Brisebois et al., is confined to the active edge user interface as discussed above. The keys on the host devices of Brisebois et al. (e.g. the cellular telephone) are not shown or suggested to be dual function as described in the present invention. Thus, no combination of Brisebois et al. and knowledge extant at the time of the invention renders the subject matter of claim 4 obvious.

Examiner further introduces Waldman as supplying the deficiency of of Brisebois et al. regarding the keys of a ten key entering a numeral. Examiner states that Waldman teaches a key touched by a user’s finger is one of the component keys of a ten key for inputting a numeral, and that the inputted information could be displayed on a screen. However, as discussed at length above, Brisebois et al. neither show nor discuss dual-function (initial touch for information, definitive pressing for selection) information-inputting keys as taught in the present invention. Waldman merely shows that the component keys of a ten key can be used to enter numerals, and also does not show or discuss dual-function information-inputting keys as taught in the present invention. Thus, no combination of Brisebois et al. and Waldman can render the subject matter of claim 4 of the present invention obvious.

Regarding claim 5, claim 5 of the present invention recites that the ten key of the present invention may be used to enter a telephone number. Examiner states that Brisebois et al. teach a ten key keypad that is used in a cellular telephone, and a function-selecting key to select a desired function. Examiner states, however, that Brisebois et al. do not teach that the ten key is used for inputting a telephone number, but that this use in the combination device of Brisebois et al., and Waldman would have been obvious because it is widely known in the art that the ten key may be used to enter a telephone number.

Applicant concurs that the use of the ten key keypad to enter a telephone number is widely known. However, as discussed extensively above, the combination device of Brisebois et al., and Waldman comprises only a ten key keypad with single function keys. Neither Brisebois et al. or Waldman shows or discusses keys of a ten key (or any other functionality) which are dual function as described in claim 5 of the present invention, i.e. keys which, upon being lightly touched by the user's finger, display information about the functionality of the key, and upon a stronger "push" or pressing of the key, definitively execute the function of the key, in this case to key in digits of a telephone number. Thus, no combination of Brisebois et al. and Waldman exists which can render the subject matter of claim 5 of the present application obvious.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Other Amendments.

Claim 6 has been amended to clarify the subject matter of the claim. The claim has been amended to recite at line 8 that the information-inputting apparatus of the claim includes a "means for inputting said information" rather than a "means for deciding to input said information". Applicant submits that the means of making a decision regarding whether or not to enter information is not part of the apparatus itself but resides within the user. Once the decision is made by the user, however, inputting the information decided upon would be carried out by using a means for inputting information that forms part of the device.

Since this amendment is undertaken simply to address the clarity of the subject matter of the claim, Applicant submits that the amendment does not introduce any new matter and respectfully requests entry of the amendment.

Formal Matters and Conclusion

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-6 of the present application be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: ruth@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael E. Whitham", written in a cursive style.

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